

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): An inspection method of a terminal metal fitting having
2 a wire connecting portion having a wall carrying ~~an~~ a sheathed electric wire and a crimping piece
3 with a mirror reflection surface bent toward the wall so as to fasten the electric wire between the
4 crimping piece and the wall, comprising the steps of:

5 illuminating the wire connecting portion fastened to the electric wire from a first specific
6 direction;

7 taking an image of the wire connecting portion from a second specific direction;

8 binary-processing the image of the wire connecting portion ~~being illuminated~~;

9 calculating whether an area is less than or not less than a threshold value in image
10 information obtained by the binary processing; and

11 judging good or bad of a fastening condition of the electric wire by the crimping piece on a
12 basis of the area.

1 Claim 2 (currently amended): An inspection system of a terminal metal fitting having
2 a wire connecting portion having a wall carrying an electric wire and a crimping piece bent toward
3 the wall so as to fasten the electric wire between the crimping piece and the wall, comprising:

a light source to illuminate the wire connecting portion;

an image-taking means to take an image of the wire connecting portion;

a dark box, with a dark inner surface, to cover at least an object side of the image-taking means, the light source, and the terminal metal fitting for preventing outer light from shining on the wire connecting portion; and

a judging means to binary-process an image of the wire connecting portion being illuminated by the light source and judge whether good or bad as to a fastening condition of the electric wire by the crimping piece on a basis of an area being less than or not less than a threshold value in image information obtained by the binary processing,

wherein the image-taking means and the light source are arranged so that the light thrown from the light source and reflected by the crimping piece with a mirror reflection surface does not enter the image-taking means, and a sheathing portion of the electric wire is a light color.

Claim 3 (original): The inspection system of the terminal metal fitting as set forth in claim 2, wherein

the image-taking means faces the wall of the wire connecting portion to which the electric wire is fastened,

and the light source is arranged at a position of making an angle θ between a line connecting the light source with the crimping piece and a direction of the electric wire fastened to the wire connecting portion so that the light thrown from the light source and reflected by the crimping piece does not enter the image-taking means.

1 Claim 4 (original): The inspection system of the terminal metal fitting as set forth in claim

2 3, wherein

3 the light source is arranged at a position of making the angle θ of not more than 45 degrees.

1 Claim 5 (currently amended): An inspection system of a terminal metal fitting having

2 a wire connecting portion having a wall carrying an electric wire and a crimping piece bent toward

3 the wall so as to fasten the electric wire between the crimping piece and the wall, comprising:

4 a light source to illuminate the wire connecting portion;

5 an image-taking means to take an image of the wire connecting portion;

6 a judging means to binary-process an image of the wire connecting portion illuminated by
7 the light source and judge good or bad of a fastening condition of the electric wire by the crimping
8 piece on a basis of an area being less than or not less than a threshold value in image information
9 obtained by the binary processing,

10 wherein the image-taking means and the light source are arranged so that the light thrown
11 from the light source and reflected by the crimping piece with a mirror reflection surface enters the
12 image-taking means.

1 Claim 6 (original): The inspection system of the terminal metal fitting as set forth in claim

2 5, wherein

3 the image-taking means faces the wall of the wire connecting portion to which the electric
4 wire is fastened,

5 and the light source faces the wall of the wire connecting portion, to which the electric wire
6 is fastened, near the image-taking means so that the light thrown from the light source and reflected
7 by the crimping piece enters the image-taking means.

1 Claim 7 (previously presented): The inspection system of the terminal metal fitting as
2 set forth in any one of claims 2-6, wherein the judging means judges whether good or bad as to a
3 fastening condition of the electric wire on a basis of an area being less than or not less than a
4 threshold value in an inspection area in the image of the wire connecting portion taken by the image-
5 taking means, the inspection area being provided for each crimping piece and including at least
6 partial image of the crimping piece.

1 Claim 8 (original): The inspection system of the terminal metal fitting as set forth in claim
2 7, wherein
3 the inspection area is positioned over a longitudinal axis of the electric wire fastened to the
4 wire connecting portion.